UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/751,848	01/02/2001	Jeong-hoon Park	Q62028	9288

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EXAMINER
LEE, ANDREW CHUNG CHEUN

ART UNIT	PAPER NUMBER
2664	7

DATE MAILED: 07/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/751,848	PARK ET AL.
	Examiner	Art Unit
	Andrew C Lee	2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 January 2001*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-59* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-59* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Drawings

1.   The drawings are objected to because the boxes shown in Figure 2 should be

labeled with descriptive legends. A proposed drawing correction or corrected drawings are

required in reply to the Office action to avoid abandonment of the application. The

objection to the drawings will not be held in abeyance.

2.   The drawings are objected to because the reference elements 1, 2 and 3 should not

be circled. A proposed drawing correction or corrected drawings are required in reply to

the Office action to avoid abandonment of the application. The objection to the drawings

will not be held in abeyance.

3.   The drawings are objected since the drawing in Fig 2 does not show the claim

limitations of claim 1 (c) and claim 2 (c), respectively — Claim 1(c) transmitting the header

separately from the bit stream transmitted in the step (b); and Claim 2 (c) separately

transmitting the payload and the header. Also Fig 2 does not show the claim limitations of

Claims 3, 4 and 7 to 10. The current drawings show the server transmitting RTCP/TCP/IP

first then waiting for Acknowledgment message from client then sending RTP/UDP/IP. The

objection to the drawings will not held in abeyance.

4.   The drawings are objected to because Fig 5 has two drawings in one page. The

drawings should be labeled and titled separately. This reflects the description in the

specification. A proposed drawing correction or corrected drawings are required in reply to

the Office action to avoid abandonment of the application. The objection to the drawings

will not be held in abeyance.

Specification

5.   Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

(1) if a machine or apparatus, its organization and operation;

(2) if an article, its method of making;

(3) if a chemical compound, its identity and use;

(4) if a mixture, its ingredients;

(5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

6.   The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

- page 9, line 21, lines 22-23 "including several layers'"

- page 10 lines1 and 2, "including several layers"

- Page 11, lines 2 and 3, "UNACK transmission protocol" and "ACK transmission protocol"

7.   The disclosure is objected to because of the following informalities:

- The Office suggests that Page 1, line 15, "packetized by a request for comments (RFC) protocol", and page 4 line 10 " conforms to a current RFC protocol" need clarification.

- Page 7, line 12, Applicant should clarify what " a file" is, (video encoded bit stream?)

- Applicant should use "transmitting/receiving" instead of using "transceiving or transceived" so as in consistent with the Title and the claims.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth
in section 102 of this title, if the differences between the subject matter sought to be patented and the prior
art are such that the subject matter as a whole would have been obvious at the time the invention was
made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall
not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the

claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the

various claims was commonly owned at the time any inventions covered therein were

made absent any evidence to the contrary. Applicant is advised of the obligation under 37

CFR 1.56 to point out the inventor and invention dates of each claim that was not

commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior

art under 35 U.S.C. 103(a).

9.   Claims 1 –28, 32-59 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Ludwig (US 6,697,352 B1) in view of Zhu (US 6,154,780) and Iizuka et al (US

5,699,521).

Regarding Claims 1-2 and 32-33, Ludwig discloses clearly adding a header from

each communication protocol layer to a payload while transmitting the bit stream coded in

the step of coding source data into the bit stream. (Fig 5, column 2, lines 10-33, column

17, lines 4-15).Ludwig fails to disclose coding source data into the bit stream using a

predetermined type of coding. However, Zhu discloses coding source data into the bit

stream using a predetermined type of coding (column 1, lines 33-34 — using H.263

representing a picture in an encoded video bitstream). He also teaches the process of

encapsulation adding overhead to another protocol's packet (column 1, lines 17-23).

Therefore, it would have been obvious to modify Ludwig to include coding source data into

the bit stream using a predetermined type of coding as that taught by Zhu in order to

create a flexible bitstream that may be efficiently packetized for a variety of transport

protocols. But, both Ludwig and Zhu do not disclose transmitting the header separately

from the bit stream transmitted in the step of adding a header from each communication

protocol layer to a payload while transmitting the bit stream coded from a coding source

data. However, Iizuka et al discloses the information of a protocol header of data to be

sent or received being used as priority decision information to decide whether transmitting

the header separately from the bit stream transmitted in the step of adding a header from

each communication protocol layer to a payload while transmitting the bit stream coded

from a coding source data (column 2, lines 21-24). It would have been obvious to modify

the combination of Lugwig and Zhu including the information of a protocol header of data

to be sent or received being used as priority decision information to decide whether

transmitting the header separately from the bit stream transmitted in the step of adding a

header from each communication protocol layer to a payload while transmitting the bit

stream coded from a coding source data as that taught by Iizuka et al in order to obviate

the need of deciding whether the sent or received data are prior ones or not by using the

priority decision information of a protocol header of the segmented leading data.(column 3,

lines 5-10).

Regarding to Claims 3-4 and 34-35, Ludwig discloses the limitation of a bit stream

having headers added in each communication protocol layer (column 2, lines 10-32) and is

transmitted in an unacknowledged mode protocol (column 14, lines 62-65), and header

transmitting in an acknowledged or unacknowledged mode protocol (column 7, lines 43-

48, Fig. 6).

Regarding claims 5-6 and 36-37, Ludwig discloses the limitation of when the

number of times of re-transmission of a bit stream transmitted in an acknowledged mode

protocol is equal to or less than a predetermined number of times, the bit stream, which

has been transmitted in an unacknowledged mode protocol, is transmitted in an

acknowledged mode protocol (column 12, lines 41-50)

Regarding claims 7-9 and 38-40, Ludwig discloses the limitation of the header

information in the bit stream be simultaneously transmitted in an acknowledged mode

protocol with the bit stream (column 14, lines 66-67). He also teaches that the header

information in the bit stream is simultaneously transmitted in an acknowledged mode

protocol with the payload (column 15, lines 6-12). And the header information in the bit

stream is simultaneously transmitted in the unacknowledged mode protocol with the bit

stream (column 14, lines 62-64).

Regarding claims 10 and 41 , Ludwig discloses that as a transmission error occurs,

the bit stream, to which headers have been added by undergoing each communication

protocol layer, is re-transmitted in an acknowledged or unacknowledged mode protocol

(column11, lines 48-57).

Regarding Claims 11-16 and 42-47, Ludwig teaches the acknowledged mode

protocol being a transmission control protocol (TCP), and the unacknowledged mode

protocol being a user datagram protocol (UDP). (Column 6, lines 24-26; lines 35-37; column 11, lines 48-57, Fig 9a and 9b).

Regarding Claims 17-24 and 48-55, Ludwig discloses the limitations of the acknowledged mode retransmitting Internet Protocol (IP) or Radio Link Protocol (RLP) packets. (Column 11, lines 50-57; column 13, lines 60-63).

Regarding Claims 25-26 and 56-57 Ludwig discloses the limitations of the headers are a payload header, a real time protocol (RTP) header, a user datagram protocol (UDP) or transmission control protocol (TCP) header, an Internet protocol (IP) header, a radio link protocol (RLP) header, and a layer 2 (L2) header, which are added after a bit stream is passed through each layer (Column 6, lines 15-26, Fig.5 and Fig.6)

Regarding claims 27-28 and 58-59, Ludwig discloses the payload includes multimedia data (column 6, lines 60-65; column 17, lines 18-19)).

10.   Claims 29, 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ludwig in view of Zhu.

Regarding Claim 29, Ludwig discloses the limitations of adding the header of each communication protocol layer to a payload while transmitting the bit stream encoded by the encoder to each communication protocol layer; and a packet processing unit for transmitting the bit stream processed by the protocol processing unit in an unacknowledged mode protocol and transmitting the header information in an unacknowledged or acknowledged mode protocol (Fig 5, column 2, lines 10-32; column 6, lines 23-26; lines 35-37). Ludwig fails to disclose the limitations of an encoder for encoding

source data into a bit stream. However, Zhu discloses the limitations of an encoder for

encoding source data into a bit stream (column 6, lines 10-14, Fig 5; lines 5-9). Therefore,

it would have been obvious to modify Ludwig to include an encoder for encoding source

data into a bit stream such as that taught by Zhu in order to create a flexible bitstream that

may be efficiently packetized for a variety of transport protocols.

Regarding to Claims 30 and 31, Ludwig disclose the system for relaying and

receiving a bit stream in a communication network (Fig 6), the system comprising an

extractor for separately extracting payloads and header information, which corresponds to

the header of each layer (column 9, lines 61-65), while transmitting a bit stream received in

a separate transmission protocol in the communication network to each layer (column 10,

lines 33-36); an error determination processing unit for determining whether the header

information extracted by the extractor has error (column 10, lines 20-27); a bit stream re-

organizing unit for re-organizing a bit stream using the header information extracted by the

extractor; and a decoder for decoding a bit stream re-organized by the bit stream re-

organizing unit (column 14, lines 46-51). He also teaches the system having the error

determination processing unit also requests re-transmission if it is determined that the

header information has error (column 13, lines 2-7).

Conclusion

11.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Andrew C Lee whose telephone number is (703) 305-8086.

The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Wellington Chin can be reached on (703) 305-4366. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status information

for unpublished applications is available through Private PAIR only. For more information

about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on

access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-

217-9197 (toll-free).

Ajit Patel
Primary Examiner

ACL   25 May 2004